

REMARKS

This Amendment responds to the Office Action mailed on January 4, 2008. Reconsideration in light of the remarks contained herein is respectfully requested.

I. Rejection Under 35 U.S.C. § 112

Claims 27 and 28 were rejected under § 112. These claims have been amended to correct their dependency and this correction remedies the noted antecedent basis problem.

II. Rejections Under 35 U.S.C. § 102 and § 103

Regarding the rejection of claims 17 and 31 and their dependent claims, the cited reference does not disclose or teach “a disengagement zone, comprising a hydrocarbon monomer having a water content and undissolved water entrained with the hydrocarbon.” The Office Action fails to address the “a hydrocarbon monomer having a water content and undissolved water entrained with the hydrocarbon” limitation, and only recites language indicating the Examiner believes the hydrocarbon monomer and undissolved water entrained in the hydrocarbon is not relevant to patentability. Contrary to the Office Action, the water in the disengagement zone is not the article worked upon, nor is it a limitation directed to the process that occurs in the claimed apparatus. The water in the disengagement zone is a physical element of the apparatus. It is not the article worked upon by the apparatus.

Furthermore, the Office Action cites to, *Ex Parte Thibault*, 164 USPQ 666 (Bd. App. 1969) as supporting the reasoning that a claim term directed to an article worked upon is not relevant to patentability. However, *Ex Parte Thibault* relates to a claim limitation of “a reservoir

... molten condition” and this was found to be disclosed in the reference cited against *Thibault* as a heated tank. Accordingly, since something in a heated tank could be made molten, *Ex Parte Thibault* appears to be a standard situation of inherent anticipation or obviousness. If there is some other circumstance that required the Board to make the broad statement that “expressions relating the apparatus to contents thereof” are of no significance in determining patentability it is not clear from the facts recited in the decision. Thus, it appears that *Ex Parte Thibault* is inapposite to the current claims, where the Examiner has not brought forth any evidence of anticipation or obviousness of several of the elements required by the claims such as the “hydrocarbon monomer having a water content and undissolved water entrained with the hydrocarbon.”

Accordingly, the better rule to follow is the well-established one that has often been expressed by the Federal Circuit: in order to anticipate a claim, each and every claim limitation must be shown in a reference. MPEP 2131 (To anticipate a claim the reference must teach every element of the claim.) See e.g. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”); and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete detail as is contained in the ... claim.”). Even for an obviousness rejection the Examiner must point to each claim element in the cited references or explain why each element is obvious. See MPEP 706.02(j). Thus, under either of these standards, a *prima facie* case of unpatentability has not been made, because the Examiner has not brought forth any evidence of anticipation or

obviousness of several of the elements required by the claims such as the “hydrocarbon monomer having a water content and undissolved water entrained with the hydrocarbon.”

Accordingly, claims 17 and 31 and their dependent claims are neither anticipated nor made obvious by the cited references and these claims are believed to be in condition for allowance.

Regarding the rejection of dependent claim 39, the cited references do not teach a “a second vessel coupled to the inlet, wherein the second vessel includes a mono-unsaturated alkene or conjugated diene.” The Office Action fails to address this limitation, and merely recites the same reasoning discussed above that limitations directed to articles worked upon are not relevant. Here there is clearly a structural feature that is not excused by the Examiner’s interpretation of the law (even if it were valid) and not found in the prior art of record. The second vessel coupled to the inlet with a mono-unsaturated alkene or conjugated diene is not present in the cited references.

In summary, Applicants assert that the limitations to a disengagement zone including water and a second vessel coupled to the inlet specify structural parts of the apparatus not disclosed in the prior art. These limitations are not directed to a process, an intended use, or merely an article worked upon. Furthermore, the facts of *In re Thibault* are inapposite to this case, and the well-established rule that all claim limitations must be found in the prior art should be respected. Accordingly, the pending claims are believed to be in condition for allowance.

III. Conclusion

For the foregoing reasons, the undersigned submits that the application is now in condition for allowance, and allowance is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Nathan T. Lewis', with a long horizontal flourish extending to the right.

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